CDFW Comment Form **Date:** ____11/26/13_____

Docum Public Review Draft: California Water Plan Update 2013 - Volume 2

Name: ____Andrew Jensen_____ **Affiliation:** CDFW **Branch/Region:** __Fisheries/Northern Re

omment	Page #	Line #	Chapter	Regional Report	Comment	Staff
1	SR-1	12	1	Sacramento River	Add "riparian" into revegetation discussion	AJ
2	SR-1	29	1	Sacramento River	Add in status of listed species, i.e. Winter-run Chinook - FESA and CESA	"
3	SR-2	16	1	Sacramento River	Include detail about the CVP and water from the Trinity River being delivered into Wiskeytown Lake via TRD and Carr Powerhouse.	"
4	SR-4	16	1	Sacramento River	Streamflows have also been seriously impacted due to extensive illegal cultivation of marijuana and diversions of streams for irrigating those cultivations.	"
5	SR-4	31	1	Sacramento River	Also, activities include reintroduction efforts to re-establish Winter-run Chinook salmon in Battle Creek.	"
6	SR-5	38	1	Sacramento River	The watershed is also subject to extensive illegal and quasi-legal cultivation of marijuana, resulting in stream dewatering, pollutant introductions, and potential poaching issues.	"
7	SR-6	14	1	Sacramento River	Impediments to spring-run and fall-run Chinook salmon, as well as steelhead.	"
8	SR-17	6	1	Sacramento River	Include a detailed discussion of Iron Mountain Mine and associated water quality issues, as well as the fact it was one of the first Super Fund Sites in the nation, in	"
9	SR-18	9	1	Sacramento River	Highlight the % of California's water supply that originates from this region - thus highlighting its importance to the entire water supply of the State.	"
10	SR-19	15	1	Sacramento River	Include a discussion of increasing conversion of oak woodland and forestland to the cultivation of marijuana, the huge increases in stream diversions associated	"
11	SR-19	23	1	Sacramento River	Also listed under CESA as endangered. In addition, spring-run are both FESA and CESA listed as threatened.	"
12	SR-30	29	1	Sacramento River	The Trinity River Restoration Program (TRRP), which was established to address the restoration of the Trinity River pursuant to the 2000 ROD, has overseen	"
13	SR-66	39	1	Sacramento River	There are four runs of Chinook salmon, not 5, as well as steelhead and green sturgeon.	"

14	SR-68	4	1	Sacramento River	The Battle Creek Restoration Program is a proactive, cooperative effort to restore the anadromous fish populations in the Sacramento River watershed in an area that has a high likelyhood of success, through the removal of legacy dams and diversions, installation of fish ladders and screens, and the reintroduction of Winter-run Chinook salmon to the North Fork of Battle Creek.	"

Name: Jen Olson **Affiliation:** CDFW **Branch/Region:** 1 Date: 11/14/13

omment	Page #	Line #	Chapter	Regional Report	Comment	Staff
1	NC-5	29-36	NC	North Coast	Include marijuana cultivation as a potential source of impaired water quality (as mentioned on p. NC-21, lines 38-39). Marijuana cultivation can affect water quality in a number of ways: increased sediment load caused by land clearing and road building for marijuana farms causes increased turbidity and sediment deposition, both of which can have negative effects on salmonids (and other aquatic organisms) during multiple stages of their life cycle. Fertilizers cause increased nitrogen levels and can lead to algal blooms and decreased dissolved oxygen. Pesticides are toxic to many aquatic organisms. Water diversions for marijuana cultivation can cause cumulative impacts to stream flows and diminish cold water inputs which are crucial for juvenile salmonids during the summer months.	JO
2	NC-7	33-37	NC	North Coast	Add text describing Chezem Road subdivision (Hwy 299 and Chezem Road) and associated marijuana cultivation and potential environmental impacts (as detailed in comment #1): increased sedimentation, fertilizer and pesticide runoff, and lower flows. This area is in contrast to the "large unbroken tracts of lands" which typify most of the rest of the watershed. Once it was subdivided, many of the parcels were converted from forest to agriculture and are now being used to cultivate marijuana. This area is an example of what happens when these large tracts of land are subdivided.	JO
3	NC-8	14-15	NC	North Coast	Many tributaries are affected by small surface water diversions for agriculture (often marijuana cultivation) and other uses. These diversions may cause cumulative impacts to flows. In addition, these diversions may cause mortality for juvenile salmonids and other aquatic organisms if diversions are not screened or are improperly screened.	JO

4	NC-9	12-13	NC	North Coast	Recommend either adding marijuana cultivation as a source of water quality problems, e.g. "Water quality problems are those associated with timber harvest, road building, forest conversion, marijuana cultivation, and overgrazing" or adding marijuana cultivation as a driver of other associated water quality problems, e.g. "Water quality problems are those associated with timber harvest, road building, forest conversion, and overgrazing. In addition, an increase in marijuana cultivation in this watershed has led to increased road building and forest conversion in rural areas". As stated in comment #1: marijuana cultivation can affect water quality in a number of ways: increased sediment load caused by land clearing and road building for marijuana farms causes increased turbidity and sediment deposition, both of which can have negative effects on salmonids (and other aquatic organisms) during multiple stages of their life cycle. Fertilizers cause increased nitrogen levels and can lead to algal blooms and decreased dissolved oxygen. Pesticides are toxic to many aquatic organisms. Water diversions for marijuana cultivation can cause cumulative impacts to stream flows and diminish cold water inputs which are crucial for juvenile salmonids during the summer months.	JO
5	NC-9	13-15	NC	North Coast	Some of the species listed in this paragraph (coho, Chinook, steelhead, rainbow trout, brook lamprey, southern torrent salamander and coastal tailed frog) are not listed in the descriptions of other North Coast watersheds in which they occur, such as the Eel River, Mad River, Redwood Creek, Trinity River, Lower Klamath River, and Smith River watersheds. Recommend mentioning these species in all the watersheds in which they occur.	JO
6	NC-21	18-19	NC	North Coast	While pheasants are a popular game bird, they are an introduced/non-native species. Instead of mentioning pheasants, CDFW recommends mentioning a native species which also inhabits cultivated and pasture lands such as Tricolored or Yellow-headed Blackbird, both CA species of special concern.	JO
7	NC-21	38-39	NC	North Coast	In addition to "illegal cultivation of marijuana in the forests" which implies trespass grows on public lands, marijuana grows on <u>private</u> lands also contribute to all the problems listed here (fertilizer and pesticide runoff, land clearing, illegal water diversions).	JO

8	NC-28	19-30	NC	North Coast	Recommend mentioning marijuana cultivation somewhere in this section. Marijuana is a water-intensive crop, averaging 6 gallons per plant per day according to the Humboldt Grower's Association 2010 document (see page 113 of scanned PDF document here: http://library.humboldt.edu/humco/holdings/HGA2.pdf). Over the past 10 years there has been a sharp increase in cultivation and conversion of forest lands to marijuana agriculture. For example, in the Trinity Pines subdivision near Hayfork there are over 400 marijuana cultivation sites in a 9 square mile area, the majority of which did not exist before 2005. This industry uses a variety of irrigation methods, often utilizing surface water diversions.	JO
9	NC-29-30	36-line 5 on next page	NC	North Coast	Similar to comment #8 above: mention marijuana cultivation somewhere in the paragraph titled "Diversity of Agriculture in North Coast Region", as it does have an effect on both the economics and environment of the North Coast Region.	JO

Name: Jane Arnold

HabCon, Eureka

omment	Page #	Line #	Chapter	Regional Report	Comment	Staff
10	NC-1	4	NC	North Coast	It is unclear how fisheries is a land use, except for in ports where fish are landed and processed or where there is access for river fishing. Please clarify. CDFW recommends including ranching, farming, rural residential, timber harvest, vineyard, marijuana cultivation, Forest Service, and Park land uses as prevalent in the Mendocino, Humboldt, Del Norte, and Trinity Counties.	JA
11	NC-76	8-Jan	NC	North Coast	The Mad and Eel rivers and Redwood Creek are not tributaries to Humboldt Bay. CDFW recommends either clarifying the language to indicate the plan is discussing a regional area (not a watershed) or create separte sections for each of the tributaries to the Pacific Ocean.	"
12	NC-7	13	NC	North Coast	Language used here is confusing. How can a reservoir continuously supply a river when the reservoir is filled from the river? CDFW recommends clarifying language so that it is clear that there is a season of impoundment of the natural flow (impaired flows) and a season when release increase flows above natural levels (augemented flows).	"

13	NC-7	15	NC	North Coast	CDFW recommends having Humboldt Bay and its tributaries separated into their own section as the Eel and Mad river and Redwood flow to the Pacific Ocean. Additionally each of these watershed have different water, resource, uses, pollutants, and other issues than Humboldt Bay and its tributaries (Jacoby Creek, Janes Creek, Freshwater Creek Elk River, etc).	"
14	NC-8	31-Jul	NC	North Coast	CDFW recommends including the Wild and Scenic status of the Eel River and some of its tributaries. Many of the watershed's tributaries are severely impacted from the cumulative effects of diversions resulting in fish kills of listed salmonids. Water conservation and storage to reduce the numbers and rates of diversion during low-flow is a measure to mitigate impacts from too many diversions.	"
15	NC-9	12	NC	North Coast	The Mattole watershed has ranches and many small private land holdings. The upper Mattole River has a water storage program for rural residents to forbear water diversion during low-flow for the benefit of coho salmon and other aquatic species.	"
16	NC-11		NC	North Coast	CDFW recommends including language to explain that the Navarro River is designated by the SWRCB as a fully appropriated stream	"
17	NC-12-13	40-41 and 1	NC	North Coast	The alluvial aquifers in the North Cost Hydrologic region are used for domestic, irrigation, municipal and other uses. Extraction of water from the alluvial aquifers leads to depleted surface flows. There is then excerbated low stream flows that reduce habitat for listed salmonids and this has resulted in fish kills. The Plan does not describe authorities over alluvial groundwater extraction including State Water Code Section 5100 et. seq. and Fish and Game Code 1600 et seq. that could potentially prevent overextraction of alluvial groundwater. The Plan does not discuss the lack of California regulations over perculating groundwater, which may also lead to overextraction of a finite resource. CDFW recommends the plan include a description of the use of alluvial and fracture rock aquafers and their overextraction, as well as the resulting affects of the overextraction.	"

	NC-17		5	NC	North Coast	Current information on locale of wells and amounts extracted from alluvial and percolating groundwater are not easily accessible for the purpose of accounting for all water use and extraction. Without better information on location, numbers, rates of extraction, and type of water extracted, the Department of Water Resources may not adequately be accounting for water supply impacts and impacts to public trust resources and senior and riparian water right holders. CDFW recommends the CWP include plans to develop and maintain a database of wells that allows better oversight of all water extractions and their quantity, location, and potential for cumulative impacts on surface flows and other water rights.	"

Name: _____Bratcher_____ **Affiliation:** CDFW **Branch/Region:** ___HCP / 1_____

omment	Page #	Line #	Chapter	Regional Report	Comment	Staff
1	SR-1	25	1	Sacramento River	This may benefit one run but not another; in addition, it does not make up for the huge loss of habitat.	PB
2	SR-1	33	1	Sacramento River	This is unsubstantiated when you look at the escapement numbers in the last 10 years. While some improvements have occurred, and there are localized improvements in escapement numbers on some watersheds, cumulatively the Sac River watershed numbers are poor.	"
3	SR-2	9	1	Sacramento River	It may be more helpful to provide information on either the watersheds identified by ERP or CVPIA that warrant interest. Focusing on just watersheds with listed fish does not provide the reader with a comprehensive understanding of the natural resources and the issues found within them. Since CVPIA and ERP also identify those other resources that also "need water" (like riparian/obligate species such as birds, small mammals, amphibians, etc.), it would be better to provide that info. Summaries on these watersheds can be found within ERP documents, such as the 2012 ERP update documents or even BDCP-related documents.	"
4	SR-3	5		Sacramento River	Global change of CDFG to CDFW. There is actually very little CDFW land along Clear Creek; most of the gravel augmentation projects have occurred on BLM and US Park Service land.	"

5	SR-3	17	Sacramento River	NMFS has set the target pulse flow in the OCAP BO (it is an RPA). This kind of flow is supposed to happen 7 out of 10 years. The FWS has a grant from ERP to implement the first 3250 cfs flow; that will likely happen in 2015. The 3250 cfs flow is a different NMFS OCAP BO RPA than the two annual, small flows (of 600 cfs each) that are held in the spring (May and June). The FWS monitors these flows primarily in terms of fish response, and the Clear Creek Technical Team, in cooperation with FWS and BOR, the CVPIA leads on Clear Creek, has made recommendations to NMFS to change these flows slightly in terms of timing and magnitude (e.g. 800 cfs and 400 cfs events in 2013).	"
6	SR-3	32	Sacramento River	This is not quite correct; there is a population known to occur on Beegum Creek, a tributary, but it is not a source population. A population is historically, and possibly presently, found on SF Cottonwood Creek, and spring-run Chinook were also found on NF Cottonwood Creek in 2012 by Mark Gard, FWS.	"
7	SR-5	35	Sacramento River	The Clough Dam no longer exists (it failed in 1997). It was replaced by a siphon. There is also a siphon associated with LMMWC, near Ward Dam.	"
8	SR-5	38	Sacramento River	There are more facets to the agreement than groundwater exchange. For example. TNC has obtained several water rights in the watershed. Contact Mill Creek Conservancy/Burt Bundy or Aric Lester/DWR for more information.	"
9	SR-6	14	Sacramento River	Passage impediment to steelhead has not been documented, but passage delays have been documented for spring-run Chinook and fall-run Chinook, depending on which dam you are talking about. Deer Creek, and Mill Creek, are two of three creeks considered crucial source populations for Spring-run Chinook; that should be mentioned.	"
10	SR-16	7	Sacramento River	This first sentence does not make sense. Riparian habitat is extremely important, but there are many other natural ecosystem elements in the Sacramento Region that are important and interact with the aquatic habitats, such as blue oak woodland, high elevation meadows. old growth forest, valley grasslands, etc. Consider revising sentence.	"

11	SR-16	23	Sacramento River	The ecosystems section is somewhat misleading since it does not give the reader a good summary of ecosystem elements that play a role in ecological processes, such as inteation with vernal pools, meadows, coniferous forsts, oak woodlands, etc., all of which cumulatively play a role in water availability, water quality, and water routing processes. Similarly, more info needs to be shared on other ecosystem elements, even if they are ones that are riparian and/or aquatic-associated. This includes fish, birds, amphibians, reptiles, and mammals whic hare dependent on aquatic habitat. Many of these are state and/or federally listed. Even a simple accounting of the number of birds, mammals, amphibians, etc. found in the Region would be helpful.	"
12	SR-17	8	Sacramento River	Cold water can be provided, but this is not always easy to accomplish. The 2009 Draft recovery plan by NMFS also projects a potential loss of the run if another independent population cannot be established. There are also potentially negative effects due to climate change that may make meeting the temperature compliance requirements (as per the 2009 OCAP BO or the draft Recovery Plan) very difficult.	"
13	SR-20	4	Sacramento River	AFRP did not fund removal of McCormick Saeltzer Dam. It was funded by another section of CVPIA. Similarly, another section of CVPIA provided funds to provide the new screen at RBDD, plus State funds were also provided for both projects due to cost share requirements within CVPIA.	"
14	SR-20	19	Sacramento River	Both SWRCB and CDFW are mandated to complete these flow studes on the Delta tributaries.	"
15	SR-29	3	Sacramento River	This is a bit misleading and may create confusion--there was not a separate NMFS BO for Shasta Operations; the BO was on the CVP operations and is commonly referred to as the OCAP BO. It covers more than just Shasta operations and even covers some of the SWP system.	"
16	SR-64	17	Sacramento River	This should be past tense. Some of the CALFED Programs, such as the Watershed Program, no longer exists. ERP is also only referred to as ERP and not CALFED ERP.	"
17	SR-65	36	Sacramento River	See earlier comments; these flow studies are being implemented/coordinated jointly between CDFW and SWRCB.	"
18	SR-67	2	Sacramento River	There are also two other IRWMP's being developed: North Sacramento Valley (six counties), and Upper Sacramento River. These should be mentioned. Also, the Section title, "Governance", is a bit misleading; IRWMP's are not believed to be governance vehicles, to my knowledge.	"

Name: Corinne Gray

Bay Delta Region

omment	Page #	Line #	Chapter	Regional Report	Comment	aff Initia
1	SFB-3	14	SFB	San Franciso	Extraction of water from groundwater and specifically alluvial aquifers in the San Fransisco Bay Hydrologic region can result in depleted surface flows. Reduced stream flows during periods of natural low flow can reduce habitat for listed salmonids and in some cases can contribute to fish kills. The Plan should describe existing authorities that are available to regulate extraction of alluvial groundwater including State Water Code Section 5100 et. seq. and Fish and Game Code 1600 et seq.. The Plan should discuss current regulatory authorities, included those held by the State Water Resources Control Board to regulate percolating groundwater. The Plan should discuss the extent of diversions from subterranean streams and the need to adopt subterranean stream maps to monitor and regulate existing and proposed well development.	CG
2	SFB-4	32	SFB	San Franciso	Current information on local of wells and amounts extracted from alluvial and percolating groundwater are not easily accessible for the purpose of accounting for all water use and extraction. Without better information on location, numbers, rates of extraction, and type of water extracted, the Department of Water Resources may not adequately be accounting for water supply impacts and impacts to public trust resources and senior and riparian water right holders. CDFW recommends the Plan include a database of wells that allows better oversight of all water extractions and their quantity, location, and potential for cumulative impacts on surface flows and other water rights.	CG

1		CC-1	27	CC	Central Coast	Extraction of water from groundwater and specifically alluvial aquifers in the Central Coast Hydrologic region can result in depleted surface flows. Reduced stream flows during periods of natural low flow can reduce habitat for listed salmonids and in some cases can contribute to fish kills. The Plan should describe existing authorities that are available to regulate extraction of alluvial groundwater including State Water Code Section 5100 et. seq. and Fish and Game Code 1600 et seq.. The Plan should discuss current regulatory authorities, included those held by the State Water Resources Control Board to regulate percolating groundwater. The Plan should discuss the extent of diversions from subterranean streams and the need to adopt subterranean stream maps to monitor and regulate existing and proposed well development.	CG
2		CC-5	29	CC	Central Coast	Current information on local of wells and amounts extracted from alluvial and percolating groundwater are not easily accessible for the purpose of accounting for all water use and extraction. Without better information on location, numbers, rates of extraction, and type of water extracted, the Department of Water Resources may not adequately be accounting for water supply impacts and impacts to public trust resources and senior and riparian water right holders. CDFW recommends the Plan include a database of wells that allows better oversight of all water extractions and their quantity, location, and potential for cumulative impacts on surface flows and other water rights.	CG

Name: Martin Potter

Branch/Region: R5

	omment	Page #	Line #	Chapter	Regional Report	Comment	Staff
1	1	SC-2	15		South Coast	It would be helpful to have a figure depicting the Planning Areas for the Region. Additional discussion of management actions could be presented, such as how the planned removal of Matilija Dam on the Ventura River will allow steelhead trout migration and will result in increased beach nourishment from sediment releases.	MP
2	2	SC-64	16		South Coast		MP
3	3	SC-3	26		South Coast	Additional information concerning aquatic and semi-aquatic wildlife resources in the South Coast Region should be presented. The reader would benefit from a table or list of these resources as was included in the Central Coast report.	MP